

Membrane Bio-Reactor (MBR)

The Membrane Bioreactor (MBR) system from T & T Pacific Sdn. Bhd. combines membrane separation technology and activated sludge treatment process into a highly efficient wastewater treatment system capable of producing higher effluent quality discharge.

The MBR system is a single treatment system that handles liquid-solid separation and replaces the secondary sedimentation unit with membrane modules in an activated sludge process. The MBR system greatly improves the liquid-solid separation, enhancing the effluent quality and in addition is capable of upgrading the volume loading.

Benefits and Advantages of MBR System

- Higher and consistent treated effluent quality standard, almost free from suspended solids.
- Smaller footprint compared to other system.
- Ability to partially disinfect without the need for chemical.
- Application for treated effluent reuse.
- Ability to treat high strength waste.
- Reduced sludge production.
- Complete independent control of HRT and SRT.
- Treatment of recalcitrant organic fractions and improved stability of processes such as nitrification.
- Flexibility for modular expansion.

The feature of TTP MBR system adopts the flat panel type membrane which when compared to conventional hollow type membrane, is much stronger in strength and less prone to clogging. This provides more efficient & reliable operation with less energy consumption.

Benefits and Advantages of TTP's MBR Membrane

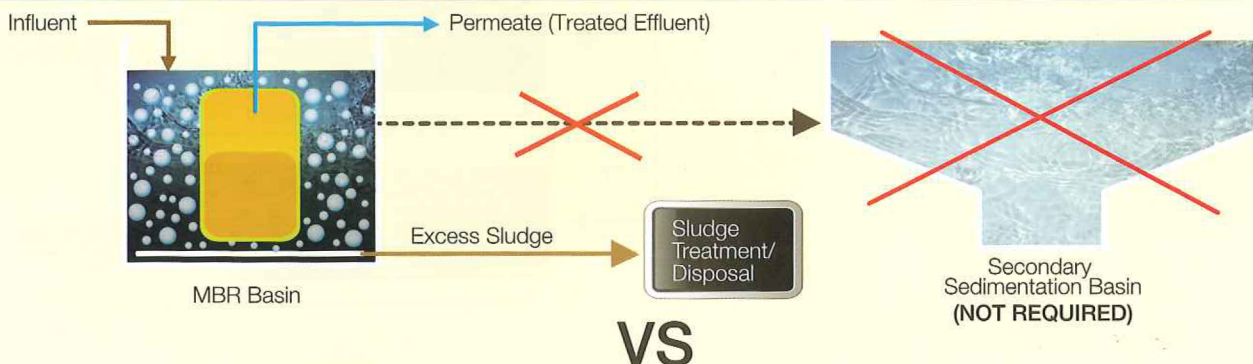
- Membrane material is polyvinylidene fluoride (PVDF), reknown for high stability for chemicals and physical strength.
- Special deflector structure and 0.1 micron of pore diameter membrane which guarantees good permeate quality and high productivity.
- Compared with hollow fiber membrane, flat sheet membrane can avoid the issue of broken fiber.
- Compared with hollow fibre membrane, flat sheet membrane is stable for a long time with excellent anti-pollution ability.



Application of TTP MBR System

- Industrial Wastewater
- Hospital Wastewater
- Drinks & Food Processing
- Wastewater Polishing
- Laundry Wastewater
- Domestic Wastewater
- Leachate Wastewater
- Water / Reuse Wastewater

MBR Process



Activated Sludge Process

